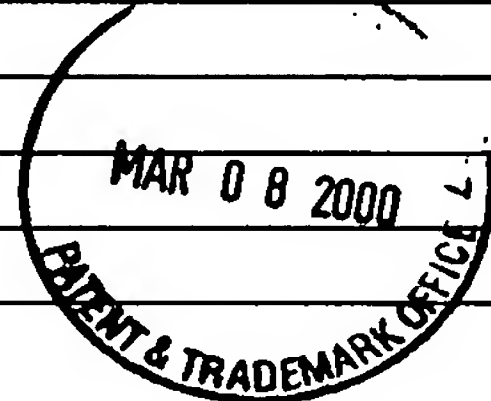


THE PATENT OFFICE OF THE PEOPLE'S REPUBLIC OF CHINA

Address: 6 Xi Tu Cheng Lu, Haidian, Beijing

Post Code: 100088

Applicant:	CANON		Date of Notification:
Attorney:			Date: <u>14</u> Month: <u>1</u> Year: <u>2000</u>
Application No.:	95107638.8		
Title of the Invention:			

Notification of the First Office Action

- ☒ The applicant requested examination as to substance on June 27, 1995 and examination has been carried out on the above-identified patent application for invention under Article 35(1) of the Patent Law of the People's Republic of China(hereinafter referred to as "the Patent Law").

☐ The Chinese Patent Office has decided to examine the application on its own initiative under Article 35(2) of the Patent Law.
- ☒ The applicant claimed priority/priorities based on the application(s):

 filed in JP on June 27, 1994, filed in _____ on _____,

 filed in JP on Oct. 28, 1994, filed in _____ on _____,

 filed in JP on June 23, 1995, filed in _____ on _____,

☐ The applicant has provided the priority documents certified by the Patent Office where the priority application(s) was/were filed.

☐ The applicant has not provided the priority documents certified by the Patent Office where the priority application(s) was/were filed and therefore the priority claim(s) is/are deemed not to have been made under Article 30 of the Patent Law.

☐ The application is a PCT continuation.
- ☐ The applicant submitted amendments to the application on _____ and on _____, wherein the amended _____ submitted on _____ and the amended _____ submitted on _____ are not acceptable, because said amendments do not comply with ☐ Article 33 of the Patent Law.

☐ Rule 51 of the Implementing Regulations of the Patent Law.

 The specific reasons why the amendments are not allowable are set forth in the text portion of this Notification.
- ☐ Examination as to substance was directed to the initial application documents as filed.

☒ Examination as to substance was directed to the documents as specified below:

 claims 1-56, pages 1-74 of the description and drawings 1-10, 12-31 filed on the date of filing,

 claims _____, pages _____ of the description and drawings 11 submitted on May 14, 1996,

 claims _____, pages _____ of the description and drawings _____ submitted on _____,

 and the abstract submitted on _____.
- ☐ This Notification is issued without search reports.

☒ This Notification is issued with consideration of the search results.

☒ Below is/are the reference document(s) cited in this Office Action(the reference number(s) will be used throughout the examination procedure):

RECEIVED
 MAR 19 2000
 TC 2000 MAIL ROOM

No.	Number(s) or Title(s) of Reference(s)	Date of Publication (or the filing date of conflicting application)
1	EP0405262A1	Date: <u>2</u> Month: <u>1</u> Year: <u>1991</u>
2	W09418694	Date: <u>18</u> Month: <u>8</u> Year: <u>1994</u>
3		Date: ___ Month: ___ Year: ___
4		Date: ___ Month: ___ Year: ___
5		Date: ___ Month: ___ Year: ___

6. Conclusions of the Action:

☒ On the Specification:

- ☐ The subject matter contained in the application is not patentable under Article 5 of the Patent Law.
☐ The description does not comply with Article 26 paragraph 3 of the Patent Law.
☒ The draft of the description does not comply with Rule 18 of the Implementing Regulations.

☒ On the Claims:

- ☐ Claim(s) _____ is/are not patentable under Article 25 of the Patent Law.
☐ Claim(s) _____ does/do not comply with the definition of inventions prescribed by Rule 2 paragraph 1 of the Implementing Regulations.
☐ Claim(s) _____ does/do not possess the novelty as required by Article 22 paragraph 2 of the Patent Law.
☒ Claim(s) 19-50, 52 does/do not possess the inventiveness as required by Article 22 paragraph 3 of the Patent Law. 53, 55, 56
☐ Claim(s) _____ does/do not possess the practical applicability as required by Article 22 paragraph 4 of the Patent Law.
☒ Claim(s) 1 does/do not comply with Article 26 paragraph 4 of the Patent Law.
☐ Claim(s) _____ does/do not comply with Article 31 paragraph 1 of the Patent Law.
☒ Claim(s) 1, 10, 12, 14 does/do not comply with the provisions of Rules 20-23 of the Implementing Regulations.
☐ Claim(s) _____ does/do not comply with Article 9 of the Patent Law.
☐ Claim(s) _____ does/do not comply with the provisions of Rule 12 paragraph 1 of the Implementing Regulations.

7. In view of the conclusions set forth above, the Examiner is of the opinion that:

- ☒ The applicant should make amendments as directed in the text portion of the Notification:
☐ The applicant should expound in the response reasons why the application is patentable and make amendments to the application where there are deficiencies as pointed out in the text portion of the Notification, otherwise, the application will not be allowed.
☐ The application contains no allowable invention, and therefore, if the applicant fails to submit sufficient reasons to prove that the application does have merits, it will be rejected.
☐

8. The followings should be taken into consideration by the applicant in making the response:

- (1) Under Article 37 of the Patent Law, the applicant should respond to the office action within 4 months counting from the date of receipt of the Notification. If, without any justified reason, the time limit is not met, the application shall be deemed to have been withdrawn.
- (2) Any amendments to the application should be in conformity with the provisions of Article 33 of the Patent Law. Substitution pages should be in duplicate and the format of the substitution should be in conformity with the relevant provision contained in "The Examination Guidelines".
- (3) The response to the Notification and/or revision of the application should be mailed to or handed over to the "Reception Division" of the Patent Office, and documents not mailed or handed over to the Reception Divisions have no legal effect.
- (4) Without an appointment, the applicant and/or his agent shall not interview with the Examiner in the Patent Office.

9. This Notification contains a text portion of ___ pages and the following attachments:

- ☒ 2 cited reference(s), totaling 13 pages.
☐

Examination Dept. _____ Examiner: _____ Seal of the Examination Department

Text of the Notification of the First Office Action

1. Claim 1 can not be supported by the specification, and does not comply with Article 26 (4) of the Chinese Patent Law (CPL). The embodiments of the specification only record the case in which the surface resistivity of the semi conductive thin film is between $10^5\Omega/\square$ and $10^{12}\Omega/\square$. However, claim 1 covers all the semi conductive thin films. According to the contents recorded in the specification, it is difficult for those skilled in the art to expect to use all the semi conductive thin films to fulfill the object of the invention. Moreover, according to the specification, the invention is only suitable for the case where a cold cathode device is used as the electron-emitting device. Therefore, the applicant should further define claim 1 with the technical features in claims 13, 16.

Claim 1 lacks technical features necessary for fulfilling the object of the invention, and does not comply with Rule 21 (2) of the Implementing Regulations (IR). In order to fulfill the object of preventing the irradiated target position of an electron beam from deflecting, the following technical features are indispensable: "said electrode" electrically connected to said semiconductor film is arranged on the target, and the semiconductor film said in claim 2 is electrically connected to the wiring (not connected to arbitrary parts of the electron source) which connects a plurality of electron-emitting devices of the electron source altogether. Therefore, the applicant should incorporated them into claim 1.

After amending claim 1 in accordance with the above comments, the applicant should suitably amend its respective dependent claims, to avoid a

repeated definition of features of independent claim 1.

2. In claims 10, 12, the meaning of “said wiriness” is not clear, which results in the scopes protected by claims 10, 12 unclear. Therefore, claims 10, 12 are not allowed for not complying with Rule 20 (1) of the IR.

3. In Claim 14, “spacers” should be changed into “said spacers”, so as to make the relation of them with that of the claims referred to by claim 14 clear, and to comply with Rule 20 (1) of the IR.

4. Reference 1 has disclosed a flat panel display device, the device has a face plate 1 on which an anode 3 and a fluorescent member 5 are deposited, and a back plate 11 on which a cathode 9 is deposited as a electron emitter. Reference 1 also has recorded the following technical contents: struts S made of electric conductive material containing PbO are so tightly held between said back plate and face plate that charges accumulated between said anode and cathode will be released by means of a leakage current flowing through said struts (obviously, struts are electrically connected to said anode and cathodes respectively at the two ends) (see Fig.5, first embodiment of the specification, and claim 1). Comparing claim 19 with reference 1, differences are only in that said spacer (corresponding to strut said in reference 1) has a semiconductor film on the surface thereof, and is provided with abutting members arranged between said spacer and electron source. However, reference 2 also has disclosed a flat panel device, and disclosed the following technical contents: a resistive coating 904 is formed on surfaces of the spacer wall 908 between the face plate and back plate, has a sheet resistance between 10^9 and 10^{14} ohms/ \square , and is used to prevent charges from accumulating on spacer wall 908; and edge metallization layers 905 and 906 are so formed at two ends of spacer wall 908 as to provide an

electric connection (see Fig.s. 9A,9B, the first paragraph from the bottom of page 39—the second paragraph of page 40, claim 8). Reference 2 belongs to the same technical field as reference 1. Therefore, based on the technical teachings of reference 2 and in view of reference 1, those skilled in the art can easily replace struts said in reference 1 with the spacer wall said in reference 2, to similarly prevent charges from accumulating and use the edge metallization layers formed at two ends of the spacer wall said in reference 2 as the abutting members, so that technical solutions sought to be protected by claim 19 can be obtained and there is not any unexpected effect in the solutions. Therefore, comparing claim 19 with the combination of reference 1 and reference 2, claim 19 does not have prominent substantive features and notable progress. Further, reference 1 and 2 are disclosed respectively on January 2, 1991 and August 18, 1994, and the technical solutions using the abutting members are not disclosed in the priority document filed in Japanese Patent Office on June 27, 1994. Therefore, for claim 19 having used the abutting members, references 1 and 2 can be used as prior art. Therefore, claim 19 does not comply with provisions of inventiveness required in Article 22 (3) of the CPL.

5. Reference 2 also has disclosed the following contents: and electron source consists of a plurality of electron-emitting devices wired by row and column-directed wirings arranged in a matrix wiring structure, and a plurality of spacers are rectangularly parallelepiped (see Fig.s 3 and 4A). On the basis of reference 1, those skilled in the art can easily replace respectively the cathode 9 as an electron emitter and the struts said in reference 1 with the electron source and the spacers said in reference 2, i.e., spacers in the face plate side are electrically connected respectively to the anode on face plate and the row or column directed wirings of the electron source on the back plate, and in order to electrically connect the spacers

having a shape such as rectangular parallelepiped to row or column-directed wirings, the longitudinal direction is so in parallel with said wirings electrically being connected thereto, that technical solutions sought to be protected by claims 20-30 and 34 can be obtained. Therefore, said claims 20-30 and 34 also do not comply with provisions of inventiveness required in Article 22 (3) of the CPL.

6. In reference 2, the spacer wall 908 contacts with the face and back plates through edge metallization layers 905 and 906. On the basis of reference 2, those skilled in the art can select a mechanically securing manner as needed, and it is obvious to use edge metallization layers 905 and 906 arranged at the abutting part between spacer wall and face and back plates for the mechanically securing. Therefore, these solutions can not bring any unexpected technical result, and technical features in claims 31 and 32 are not helpful to the establishment of their inventiveness.

7. The technical features in claims 33, 35, 36, 52, 55 have been disclosed by reference 2. Thus, these claims are also not possessing inventiveness.

8. The further definitions of electron-emitting devices in 37 and 38 are all well known knowledge in the art, and are also not helpful to the establishment of their inventiveness.

9. Based on the same reasons as the comments of points 4-8, claims 39-50, 53, 56 also do not comply with the provisions of inventiveness required in Article 22 (3) of the CPL.

10. The title of the innovation fails to reflect the subject matter of the

invention, and should be amended to comply with provisions of Rule 18(1-5) of the IR.

Based on above reasons, the application is not patentable under the present text. If the application could amend the application document in accordance with examiner's comments proposed in the notification, and overcome the defects, then it will be expected to speed up the examination procedure. Otherwise, the application will be rejected. The applicant should note that, any amendments to the application document should comply with Article 33 of the CPL, i.e., can not go beyond the scope recorded in the initial specification and claims.